



Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT)

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RACT – Reasonably Available Control Technology

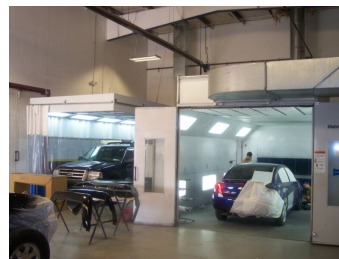
- ▶ Certain states are required under federal law to adopt rules implementing EPA's Control Technique Guidelines
- ▶ Rules are written for specific source categories

RACT

- ▶ Miscellaneous metal parts and products coating, Env-A 1212 – Includes:
 - any metal coating process not otherwise regulated under a different category;
 - automotive or transportation equipment; and
 - Interior or exterior automotive parts

RACT Applicability

- ▶ Metal coating operations which have actual emissions of VOCs greater than 3 tons per year.



Calculating Emissions

- ▶ Information needed
 - Usage records
 - Material Safety Data Sheets
 - Physical and chemical properties
 - Gallon Weight (lbs/gal) and Percent VOC; or
 - Solvent Density (VOC content)

Calculating Emissions

- ▶ Example 1
 - 100 gallons primer used
 - Gallon weight = 6.42 lb/gal
 - Percent VOC = 85.7%

$$\text{VOC emissions} = (100 \text{ gals/yr}) \times (6.42 \text{ lb/gal}) \times (0.857) \\ = 550 \text{ lbs/yr} \div 2000 \text{ lbs/ton} = 0.28 \text{ tons/yr}$$

Calculating Emissions

▶ Example 2

- 1000 gallons of paint used
- Solvent Density = 6.5 lb VOC/gal paint

$$\text{VOC emissions} = (1000 \text{ gal/yr}) \times (6.5 \text{ lb VOC/gal}) = 6,500 \text{ lb/yr} \div 2000 \text{ lb/ton} = 3.25 \text{ ton/yr}$$

Calculating Emissions

- ▶ Total VOCs = VOCs from all paints, primers and clear coats



Actual VOCs > 3 tons/year?

- ▶ For sources in existence before June 1, 2011, rule is effective on January 1, 2016
- ▶ New sources (built after June 1, 2011) need to meet standard immediately
- ▶ Must use low-VOC coatings (< 3.5 lb VOC/gal)
- ▶ **Call DES or NHADA for assistance**

RACT Recordkeeping

- ▶ Keep records of paint usage and VOC emissions in order to show that actual emissions are less than 3 tons per year

Regulated Toxic Air Pollutants (RTAPs)

Env-A 1400

RTAPs (Regulated Toxic Air Pollutants)

- ▶ Over 600 toxic air pollutants covered under regulation
- ▶ Each pollutant has an Ambient Air Limit based on its toxicity

Exemption

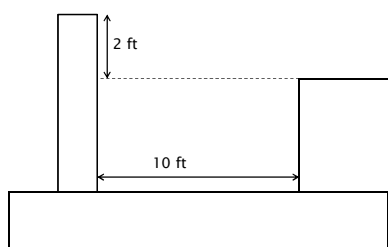
- ▶ Autobody refinishing operation that meets the following:
 - Exhaust stack is vertical and unobstructed;
 - Source is in compliance with 40 CFR 63, Subpart HHHHHH; and
 - Source uses less than 500 gallons per year of commercially available paints or coatings



Exemption

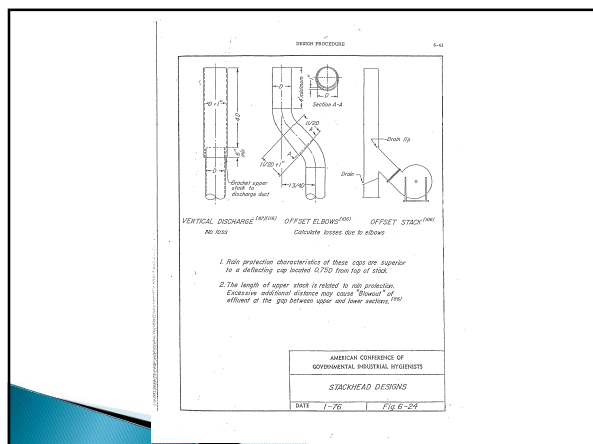
- ▶ “Unobstructed” stack means:
 - No impediment to vertical flow from the stack; and
 - Exhaust stack extends at least 2 feet higher than any roofline within 10 feet of the exhaust stack exit, measured horizontally

Unobstructed Stack



Not 2 feet above
roof line

Rain Cap



Don't meet exemption

Call DES or NHADA for assistance



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